This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Cancelled)

2. (Currently Amended) ~~The method of claim 1,~~ A computer implemented method for performing a clean operation on an input table having an input table name, comprising:

    receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein each rule definition is associated with one rule table including the find criteria and replacement value, and wherein a rule table column parameter for each rule definition indicates the columns in the rule table including the find criteria and replacement value for the rule definition;

    searching, for each rule definition, the input data column for any fields that match the find criteria;

    determining whether the rule definition specifies an output table; and

    in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

3. (Currently Amended) ~~The method of claim 1,~~ A computer implemented method for performing a clean operation on an input table having an input table name, comprising:
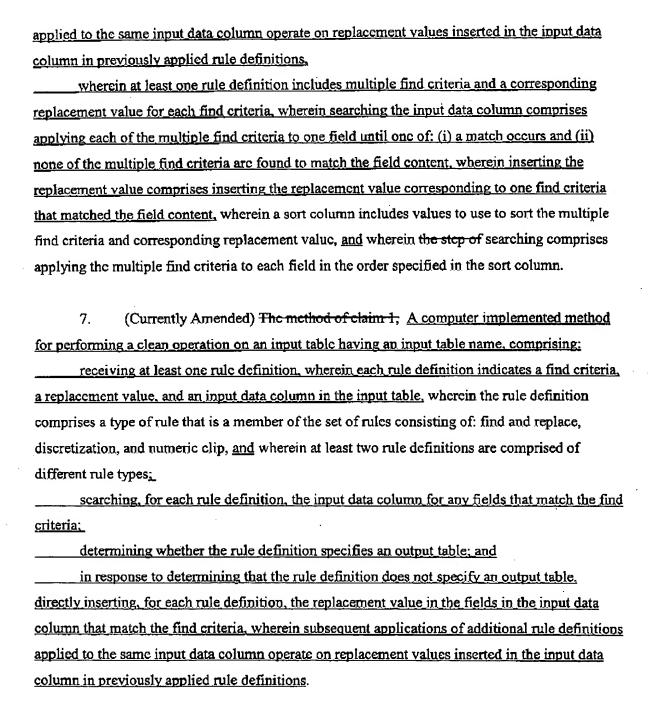
    receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein there is a separate rule table including the find criteria and replacement value associated with at least one rule definition,

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and wherein, for each rule definition, a rule table column parameter indicates the columns in the rule table for the rule definition including the find criteria and replacement value for that rule definition:

searching, for each rule definition, the input data column for any fields that match the find criteria:

determining whether the rule definition specifies an output table: and

in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

4.   (Cancelled)

5.   (Cancelled)

6.   (Currently Amended) ~~The method of claim 5,~~ A computer implemented method for performing a clean operation on an input table having an input table name, comprising:

receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table:

searching, for each rule definition, the input data column for any fields that match the find criteria:

determining whether the rule definition specifies an output table: and

in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions

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applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions,

wherein at least one rule definition includes multiple find criteria and a corresponding replacement value for each find criteria, wherein searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content, wherein a sort column includes values to use to sort the multiple find criteria and corresponding replacement value, and wherein the step of searching comprises applying the multiple find criteria to each field in the order specified in the sort column.

7.   (Currently Amended) The method of claim 1, A computer implemented method for performing a clean operation on an input table having an input table name, comprising:

receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein the rule definition comprises a type of rule that is a member of the set of rules consisting of: find and replace, discretization, and numeric clip, and wherein at least two rule definitions are comprised of different rule types;

searching, for each rule definition, the input data column for any fields that match the find criteria;

determining whether the rule definition specifies an output table; and

in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein 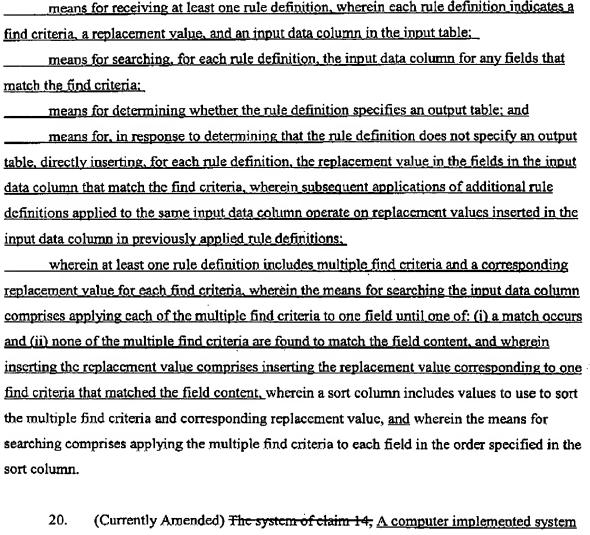subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

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8.   (Cancelled)

9.   (Cancelled)

10.   (Cancelled)

11.   (Cancelled)

12.   (Cancelled)

13.   (Cancelled)

14.   (Cancelled)

15.   (Currently Amended) ~~The system of claim 14;~~ A computer implemented system
for performing a clean operation on an input table having an input data table name, comprising:
        means for receiving at least one rule definition, wherein each rule definition indicates a
find criteria, a replacement value, and an input data column in the input table, wherein each rule
definition is associated with one rule table including the find criteria and replacement value, and
wherein a rule table column parameter for each rule definition indicates the columns in the rule
table including the find criteria and replacement value for the rule definition:
        means for searching, for each rule definition, the input data column for any fields that
match the find criteria:
        means for determining whether the rule definition specifies an output table; and
        means for, in response to determining that the rule definition does not specify an output
table, directly inserting, for each rule definition, the replacement value in the fields in the input
data column that match the find criteria, wherein subsequent applications of additional rule

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definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

16.   (Currently Amended) ~~The system of claim 14;~~ A computer implemented system for performing a clean operation on an input table having an input data table name, comprising:

        means for receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein there is a separate rule table including the find criteria and replacement value associated with at least one rule definition, and wherein, for each rule definition, a rule table column parameter indicates the columns in the rule table for the rule definition including the find criteria and replacement value for that rule definition;

        means for searching, for each rule definition, the input data column for any fields that match the find criteria;

        means for determining whether the rule definition specifies an output table; and

        means for, in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

17.   (Cancelled)

18.   (Cancelled)

19.   (Currently Amended) ~~The system of claim 18;~~ A computer implemented system for performing a clean operation on an input table having an input data table name, comprising:

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_____means for receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table;

_____means for searching, for each rule definition, the input data column for any fields that match the find criteria;

_____means for determining whether the rule definition specifies an output table; and

_____means for, in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions;

_____wherein at least one rule definition includes multiple find criteria and a corresponding replacement value for each find criteria, wherein the means for searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, and wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content, wherein a sort column includes values to use to sort the multiple find criteria and corresponding replacement value, and wherein the means for searching comprises applying the multiple find criteria to each field in the order specified in the sort column.

20.   (Currently Amended) ~~The system of claim 14;~~ A computer implemented system for performing a clean operation on an input table having an input data table name, comprising:

_____means for receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein the rule definition comprises a type of rule that is a member of the set of rules consisting of: find and replace, discretization, and numeric clip, and wherein at least two rule definitions are comprised of different rule types;

_____ means for searching, for each rule definition, the input data column for any fields that match the find criteria;

_____ means for determining whether the rule definition specifies an output table; and

_____ means for, in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

21.   (Cancelled)

22.   (Cancelled)

23.   (Cancelled)

24.   (Cancelled)

25.   (Cancelled)

26.   (Cancelled)

27.   (Cancelled)

28.   (Currently Amended) The article of manufacture of claim 27, An article of manufacture for use performing a clean operation on an input table in a database having an input data table name, the article of manufacture comprising computer usable media including at least one computer program embedded therein that causes the computer to perform:

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_____receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein each rule definition is associated with one rule table including the find criteria and replacement value, and wherein a rule table column parameter for each rule definition indicates the columns in the rule table including the find criteria and replacement value for the rule definition;

_____searching, for each rule definition, the input data column for any fields that match the find criteria;

_____determining whether the rule definition specifies an output table; and

_____in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

29.   (Currently Amended) ~~The article of manufacture of claim 27;~~ An article of manufacture for use performing a clean operation on an input table in a database having an input data table name, the article of manufacture comprising computer usable media including at least one computer program embedded therein that causes the computer to perform:

_____receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein there is a separate rule table including the find criteria and replacement value associated with at least one rule definition, and wherein, for each rule definition, a rule table column parameter indicates the columns in the rule table for the rule definition including the find criteria and replacement value for that rule definition;

_____searching, for each rule definition, the input data column for any fields that match the find criteria;

_____determining whether the rule definition specifies an output table; and

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in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

30.   (Cancelled)

31.   (Cancelled)

32.   (Currently Amended) ~~The article of manufacture of claim 31,~~ An article of manufacture for use performing a clean operation on an input table in a database having an input data table name, the article of manufacture comprising computer usable media including at least one computer program embedded therein that causes the computer to perform:

receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table;

searching, for each rule definition, the input data column for any fields that match the find criteria;

determining whether the rule definition specifies an output table; and

in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions;

wherein at least one rule definition includes multiple find criteria and a corresponding replacement value for each find criteria, wherein searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii)

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none of the multiple find criteria are found to match the field content, and wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content, wherein a sort column includes values to use to sort the multiple find criteria and corresponding replacement value, and wherein ~~the step of~~ searching comprises applying the multiple find criteria to each field in the order specified in the sort column.

33.   (Currently Amended) ~~The article of manufacture of claim 27,~~ An article of manufacture for use performing a clean operation on an input table in a database having an input data table name, the article of manufacture comprising computer usable media including at least one computer program embedded therein that causes the computer to perform:

_____ receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and an input data column in the input table, wherein the rule definition comprises a type of rule that is a member of the set of rules consisting of: find and replace, discretization, and numeric clip, and wherein at least two rule definitions are comprised of different rule types:

_____ searching, for each rule definition, the input data column for any fields that match the find criteria:

_____ determining whether the rule definition specifies an output table; and

_____ in response to determining that the rule definition does not specify an output table, directly inserting, for each rule definition, the replacement value in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions.

34.   (Cancelled)

35.   (Cancelled)

36.   (Cancelled)

37.   (Cancelled)

38.   (Cancelled)

39.   (Cancelled)

40.   (Cancelled)

41.   (Currently Amended) ~~The memory device of claim 40,~~ A memory device including a command data structure, comprising:

an input data table name parameter indicating the input table subject to the clean operation; and

at least one rule definition, wherein each rule definition includes a find criteria, a replacement value, and an input data column in the input table, wherein, for each rule definition, the input data column is searched for any fields that match the find criteria, wherein, for each rule definition, it is determined whether the rule definition specifies an output table, and in response to determining that the rule definition does not specify an output table, the replacement value is directly inserted in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions, and wherein at least one rule definition further includes: an indication of one rule table including the find criteria and replacement value for the at least two rule definitions, such that the one rule table includes the find criteria and replacement value for the at least two rule definitions [[;]] and a rule table column parameter for the at least two rule definitions

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indicating the columns in the rule table including the find criteria and replacement value for the rule definitions.

42.   (Currently Amended) ~~The memory device of claim 40,~~ A memory device including a command data structure, comprising:

    an input data table name parameter indicating the input table subject to the clean operation; and

    at least one rule definition, wherein each rule definition includes a find criteria, a replacement value, and an input data column in the input table, wherein, for each rule definition, the input data column is searched for any fields that match the find criteria, wherein, for each rule definition, it is determined whether the rule definition specifies an output table, and in response to determining that the rule definition does not specify an output table, the replacement value is directly inserted in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions, and wherein at least one rule definition further includes: an indication of a separate rule table for each rule definition including the find criteria and replacement value for the at least two rule definitions [[;]] and a rule table column parameter indicating the columns in the rule table for the rule definition including the find criteria and replacement value for that rule definition.

43.   (Cancelled)

44.   (Cancelled)

45.   (Currently Amended) ~~The memory device of claim 40,~~ A memory device including a command data structure, comprising:

_____ an input data table name parameter indicating the input table subject to the clean operation; and

_____ at least one rule definition, wherein each rule definition includes a find criteria, a replacement value, and an input data column in the input table, wherein, for each rule definition, the input data column is searched for any fields that match the find criteria, wherein, for each rule definition, it is determined whether the rule definition specifies an output table, and in response to determining that the rule definition does not specify an output table, the replacement value is directly inserted in the fields in the input data column that match the find criteria, and wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions, wherein at least one rule definition further includes multiple find criteria and a corresponding replacement value for each find criteria, wherein the input data column is searched by applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, and wherein the replacement value corresponding to the matching find criteria is inserted into the field, wherein the at least one rule definition further comprises a sort column including values to use to sort the multiple find criteria and corresponding replacement value, and wherein the multiple find criteria are applied to each field in the input data column in the order specified in the sort column.

46.   (Currently Amended) ~~The memory device of claim 40;~~ A memory device including a command data structure, comprising:

_____ an input data table name parameter indicating the input table subject to the clean operation; and

_____ at least one rule definition, wherein each rule definition includes a find criteria, a replacement value, and an input data column in the input table, wherein, for each rule definition, the input data column is searched for any fields that match the find criteria, wherein, for each rule definition, it is determined whether the rule definition specifies an output table, and in response

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to determining that the rule definition does not specify an output table, the replacement value is directly inserted in the fields in the input data column that match the find criteria, wherein subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule definitions, wherein the rule definition comprises a type of rule that is a member of the set of rules consisting of: find and replace, discretization, and numeric clip, and wherein at least two rule definitions are comprised of different rule types.

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